

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A transmission power control method for controlling the transmission power of packet signals to be transmitted from a mobile station via an upstream radio channel, in a radio communication system for allowing radio communications between a base station and a plurality of mobile stations via code division multiple access (CDMA) radio channels, the method comprising:

measuring the traffic volume of the packet signals in the base station; and

switching between a first control method ~~for determining the transmission power~~ and a second control method ~~for determining the transmission power~~ based on the measured traffic volume in the base station, the first control method controlling the transmission power so as to keep the received power of the packet signals in the upstream radio channels constant, the second control method controlling the transmission power so as to keep a ratio between the received power of the packet signals and the interference power in the upstream radio channels constant;

transmitting a notification signal for notifying the measured traffic volume of the packet signals and the control method selected by the switching; and

judging whether to transmit an acknowledgement signal indicating that a received power of an access control signal received from the mobile station satisfies a predetermined condition.

Claim 2 (Currently Amended): A transmission power control method for controlling the transmission power of packet signals to be transmitted from a mobile station via an upstream radio channel, in a radio communication system for allowing radio communications

between a base station and a plurality of mobile stations via code division multiple access (CDMA) radio channels, the method comprising:

measuring the traffic volume of the packet signals in the base station; and

switching between a first control method ~~for determining the transmission power~~ and a second control method ~~for determining the transmission power~~ based on the measured traffic volume in the base station, the first control method controlling the transmission power so as to keep the received power of the packet signals in the upstream radio channels constant, and the second control method controlling the transmission power so as to keep a difference between the received power of the packet signals and the interference power in the upstream radio channels constant;

transmitting a notification signal for notifying the measured traffic volume of the packet signals and the control method selected by the switching; and

judging whether to transmit an acknowledgement signal indicating that a received power of an access control signal received from the mobile station satisfies a predetermined condition.

Claim 3 (Currently Amended): A radio communication system for radio communications between a base station and a plurality of mobile stations via code division multiple access (CDMA) radio channels, the system comprising:

a measurer configured to measure traffic volume of packet signals transmitted from the mobile stations via upstream radio channels; and

a switcher configured to switch between a first control method ~~for determining transmission power of packet signals in the mobile stations~~ and a second control method ~~for determining transmission power of packet signals in the mobile stations~~ based on the measured traffic volume, the first control method controlling the transmission power of the

packet signals in the mobile stations so as to keep the received power of the packet signals in the upstream radio channels constant, the second control method controlling the transmission power of the packet signals in the mobile stations so as to keep a relationship between the received power of the packet signals and the interference power in the upstream radio channels constant;

a notification signal transmitter configured to transmit a notification signal for notifying the traffic volume of the packet signals measured by the measurer and the control method of the transmission power selected by the switcher; and

an acknowledgement signal transmitting controller configured to judge whether or not to transmit an acknowledgement signal for indicating that a received power of an access control signal received from one of the plurality of mobile stations satisfies a predetermined condition.

Claim 4 (Currently Amended): A base station for communicating with a plurality of mobile stations via code division multiple access (CDMA) radio channels, the base station comprising:

a measurer configured to measure traffic volume of packet signals transmitted from the mobile stations via upstream radio channels; and

a switcher configured to switch between a first control method ~~for determining transmission power of packet signals in the mobile stations~~ and a second control method ~~for determining transmission power of packet signals in the mobile stations~~ based on the measured traffic volume, the first control method controlling the transmission power of the packet signals in the mobile stations so as to keep the received power of the packet signals in the upstream radio channels constant, the second control method controlling the transmission power of the packet signals in the mobile stations so as to keep a ratio between the received

power of the packet signals and the interference power in the upstream radio channels
constant;

a notification signal transmitter configured to transmit a notification signal for
notifying the traffic volume of the packet signals measured by the measurer and the control
method of the transmission power selected by the switcher; and

an acknowledgement signal transmitting controller configured to judge whether or not
to transmit an acknowledgement signal for indicating that received power of an access
control signal received from one of the plurality of mobile stations satisfies a predetermined
condition.

Claim 5 (Original): The base station according to claim 4, wherein
the measurer measures an average interference power in the upstream radio channels
per time unit as the traffic volume of the packet signals, and the switcher switches between
the first control method and the second control method, based on the average interference
power and a predetermined threshold.

Claim 6 (Canceled).

Claim 7 (Currently Amended): The base station according to claim 4 [[6]], wherein
the predetermined condition is that the received power of the access control signal is smaller
than a predetermined power, when the first control method is selected by the switcher.

Claim 8 (Currently Amended): The base station according to claim 4 [[6]], wherein
the predetermined condition is determined based on the received power of the access control

signal and the interference power in the upstream radio channels, when the second control method is selected by the switcher.

Claim 9 (Currently Amended): A base station for communicating with a plurality of mobile stations via code division multiple access (CDMA) radio channels, comprising:

a measuring unit configured to measure traffic volume of packet signals transmitted from the mobile stations via upstream radio channels; and

a switcher configured to switch between a first control method ~~for determining transmission power of packet signals in the mobile stations~~ and a second control method ~~for determining transmission power of packet signals in the mobile stations~~ based on the measured traffic volume, the first control method controlling the transmission power of the packet signals in the mobile stations so as to keep the received power of the packet signals in the upstream radio channels constant, the second control method controlling the transmission power of packet signals to be transmitted from the mobile station via an upstream radio channel, so as to keep a difference between the received power and the interference power in the upstream radio channels constant;

a notification signal transmitter configured to transmit a notification signal for notifying the traffic volume of the packet signals measured by the measurer and the control method of the transmission power selected by the switcher; and

an acknowledgement signal transmitting controller configured to judge whether or not to transmit an acknowledgement signal for indicating that a received power of an access control signal received from one of the plurality of mobile stations satisfies a predetermined condition.

Claim 10 (Currently Amended): A mobile station for communicating with a base station via code division multiple access (CDMA) radio channels, the mobile station comprises:

a notification signal received power measurer configured to measure the received power of a notification signal transmitted from the base station;

an extractor configured to extract the traffic volume of packet signals transmitted via upstream radio channels and a control method of the transmission power of the packet signals selected in the base station, from the notification signal; ~~and~~

a transmission judger configured to judge whether or not to transmit the packet signals, based on the received power of the notification signal, the traffic volume of the packet signals and the control method of the transmission power of the packet signals;

an access control signal transmitter configured to transmit an access control signal with a predetermined transmission power via the upstream radio channel, before the transmission of the packet signals, when the transmission judger judges to transmit the packet signals; and

a packet signal transmitter configured to transmit the packet signals with the predetermined transmission power, when receiving an acknowledgement signal for indicating that the received power of the access control signal in the base station satisfies a predetermined condition from the base station.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The mobile station according to claim 10 ~~[[11]]~~, wherein the access control signal transmitter increases the predetermined transmission power

and transmits the access control signal again with the increased predetermined transmission power, when not receiving the acknowledgement signal during a predetermined period.

Claim 13 (Currently Amended): The mobile station according to claim 10 [[11]], wherein the packet signal transmitter transmits the packet signals with the predetermined transmission power, when the mobile station does not receive the acknowledgement signal during a predetermined period and the predetermined transmission power is the maximum transmission power in the mobile station.